

Claims

What we claim is:

- 1 1. A double transdominant fusion gene, comprising:
2 a *tat* transdominant mutant gene linked to a *rev*
3 transdominant mutant gene, wherein said double transdominant
4 fusion gene inhibits expression of HIV.
- 1 2. The double transdominant fusion gene of claim 1, wherein
2 codons in the *tat* mutant which code for basic amino acids at
3 positions 52 to 57 of the Tat protein are replaced with codons
4 which code for neutral amino acids.
- 1 3. The fusion gene of claim 2, herein the coding sequence for amino
2 acids arg, arg, gln, arg, arg and arg is replaced with the coding
3 sequence for amino acids gly, gly, ala, gly, gly and gly.
- 1 4. The fusion gene of claim 1, wherein codons of the *rev* mutant
2 gene which code for amino acids at positions 80 to 82 of the Rev
3 protein have been deleted.
- 1 5. The fusion gene of claim 1, wherein the *tat* and *rev*
2 transdominant mutant genes are linked by a histidine bridge.
- 1 6. A double transdominant fusion gene, comprising:
2 a *tat* transdominant mutant gene, wherein codons of said
3 *tat* mutant gene which code for basic amino acids at positions 52
4 to 57 of the Tat protein are replaced with codons which code for
5 neutral amino acids;

6 a *rev* transdominant mutant gene, wherein the codons of
7 the Rev mutant which code for amino acids at positions 80 to 82
8 of the *Tat* protein have been deleted; and
9 a histidine bridge linking the *tat* transdominant mutant
10 gene to the *rev* mutant gene.

1 7. The transdominant protein produced by the transdominant
2 fusion gene of claim 6.

1 8. A method of treating HIV disease in humans, comprising:
2 delivering to the human to be treated a pharmacologically
3 effective dose of a double transdominant gene containing a *tat*
4 transdominant mutant gene linked to a *rev* transdominant
5 mutant gene.